ABSTRACT OF THE DISCLOSURE

In an object-detecting system using an FM-CW wave, points fl to f4 corresponding to detection peaks of a reflected wave from a road-side object such as guardrail and points ml and m2 corresponding to detection peaks of a reflected wave from a moving object such as a reflector of a preceding vehicle are indicated on two-dimensional coordinates along with the shape of a road ahead of a subject vehicle. Among the points fl to f4, ml and m2, the points fl to f4 are determined as being provided by the reflected wave from the road-side object, and a distance from the subject vehicle to the object and a speed of the subject vehicle relative the object are calculated using the remaining points ml and m2 excluding the points fl to f4. Thus, only the moving object except the road-side object can be detected.